

ART. VI.—A Revision of the Genus *Pultenaea*. Part V.

By H. B. WILLIAMSON, F.L.S.

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PULTENAEA MOLLIS Lindley.

An attempt is here made to clear up the difficulty involved in this species, a difficulty which seems to have arisen from an error in the determination of Robertson's Mt. Sturgeon specimens as *P. viscosa* R.Br., Fl. Aust., II., 127. Referring to Revision, Part III., *Proc. Roy. Soc. Vic.*, p. 107, it may be taken as certain that the specimens collected (*a*) by Robertson, Fl. Aust., II., 127; (*b*) by Mueller about 1855; and (*c*) by the author were the same species. The leaves are scarcely to be distinguished from those of the Clyde Mt. and Parramatta specimens of *P. viscosa* R.Br., and Mueller determined (*a*) and (*c*) as *viscosa*. Specimens (*b*) and (*c*) have been determined at Kew as *P. mollis* Lindl., as they agree with those distributed by Lindley, and which are considered at Kew as portions of the plant gathered by Mitchell and given to Cunningham. Mueller determined his own specimens as *P. mollis*, and they agree exactly with those of the author, who in conversation with the distinguished botanist in 1895 learned that 40 years before the locality had been the site of his camp on the Wannon.

It seems, therefore, that *P. viscosa* has been wrongly recorded for Victoria. In view of the fact that Bentham's description was framed to include the Mount Macedon specimens of Mueller, which now must be kept distinct, and the true *mollis* of Lindley, which is so close to the more recently described *P. viscosa*, it must for a time be doubtful whether this species should have been set up at all. The plant which has been accepted by Victorian collectors as *P. mollis* (Grampians, Mt. Macedon, Gembrook, and recently Bairnsdale, T. S. Hart), differs materially from the type which appears to be confined to the southern Grampians, the Wannon River and Portland, and as all these specimens agree on the whole with the Mount Macedon specimen collected by Mueller, it had better be kept distinct as *P. angustifolia*, Mueller's MS. name on the label. A description is here given.

PULTENAEA ANGUSTIFOLIA (F.v.M. Herb.), sp. nov.

Frutex circiter 2 m. altus, ramulis pubescentibus, foliis tenuibus fere teretibus 10-20 mm. longis glabris vel pubescentibus, floribus breves ramos terminantibus in capitula (5-7 fl.) congregatis pedicellis 2-3 mm. longis, stipulis minimis nigris recurvatis, bracteis latis pedicellis brevioribus plerumque bifidis, bracteolis latis saepe viscosis nonnumquam carinatis arcte appressis tubo

calycis aequilongis, calyce fere glabra lobis subaequalibus obtusis vel subacutis superioribus paulo latioribus quam inferiora, ovario villosa.

Mt. Macedon, Mueller; Gembrook Ranges; Grampians; Bairnsdale (T. S. Hart, Sept., 1927).

Var. *VISCOSA*, var. nov.

Calyce bracteis et bracteolis viscosis.

The form from the Grampians, Vic., with its calyx, bracts and bracteoles viscous and its leaves rather longer.

The relation of the foregoing species to each other is shown thus:—

A. Leaves almost flat.

B. Leaves incurved, flowers densely crowded in a head (7 to 10) on very short pedicels, bracteoles half the length of the calyx. *P. mollis.*

B. Leaves almost straight, flowers in heads (5-6) not crowded, on pedicels 2-3 mm. long, bracteoles nearly as long as the calyx. *P. viscosa.*

A. Leaves thin, terete, channelled above, flowers not densely crowded, on pedicels 2mm. long, bracteoles short and broad.

P. angustifolia.
var. *viscosa.*

Calyx viscous.

PULTENAEA HIBBERTIODES Hk. f.

var. *PROSTRATA*, var. nov.

Frutex prostratus, foliis et floribus valde confertis.

A prostrate form with much crowded leaves and flowers. Waterloo Bay, Wilson's Prom., Nat. Park, J. W. Audas, Nov., 1908. The flowers of var. *conferta* Bth., Cobden, S.W. Vic., are much crowded, but its leaves are not distinctly so as in this form. This is evidently the plant that has been recorded from Georgetown, North Coast of Tasmania.

PULTENAEA KENNYI H.B.W.

=*P. microphylla* Sieber var. *cuneata* Bth.

This agrees with the var. *cuneata* Bth. in *Ann. Wien. Mus.*, ii., 83 (Fl. Aust., II., 117). As from this form to the normal *P. microphylla* a series of intermediates as regards width of leaves has been examined, the plant should still retain varietal rank only.

PULTENAEA FOLIOLOSA Cunn.

Benth. in *Ann. Wien. Mus.*, ii., 83.

This plant has very small leaves, often only 1 mm. long, almost orbicular, crowded on short branchlets of 1-2 cm. long, at the ends of which are a few flowers in the axils. Stipules are hairlike, nearly as long as the leaves, and the bracteoles are similar to the leaves, and provided with hair-like stipules. The calyx is about 4 mm. long, with lobes not longer than the tube; the two upper

ones much falcate and united to the middle. The ovary is glabrous except for a tuft of white hairs.

The type of this species came from westward of the Wellington Valley, N.S.W., A. Cunn. There are specimens from Lachlan River, Fraser; Darling Downs, Q., Mrs. Ford; Texas, Q., Boorman; Eastern Downs, H. Law. The form from Chiltern, "Mayday Hills," "Between Meadow Creek and King River," N.E. Victoria, differs from the normal in size of flowers and leaves, the latter reaching 4 mm. in some specimens. It shows a transition towards *P. styphelioides* Cunn. through its intermediate var. *mutica* F.v.M., having often lanceolate bracteoles fixed high upon the calyx. From New England, N.S.W., there is a plant which so much resembles *P. foliolosa* in general appearance that it is little wonder that it has been placed under that species. Its remarkable calyx, however, renders it quite distinct, and with the concurrence of the authorities at Kew it is now described, the species name being in honour of the collector of the Tenterfield specimen.

PULTENAEA STUARTIANA, sp. nov.

Frutex parvus, ramulis numerosis brevibus, foliis minimis raro 2 mm. longis ovato-orbicularibus supra concavis infra scabridis apice recurvatis, stipulis parvis, floribus fere sessilibus in axillis superioribus, bracteolis foliaceis quasi stipulatis, calyce 4 mm. longo villosolobis latis tubo longioribus oblongis inter se aequilongis et formâ similibus superioribus non falcatis, ovario glabro apice comam gerente.

New South Wales: Tenterfield, C. Stuart; Torrington, J. L. Boorman.

This differs from *P. foliolosa* Cunn. in having the long lobes of the calyx similar in size and shape.

PULTENAEA ACCROSA R.Br.

A record for this species in Victoria has been made, the plant having been gathered near Mt. William in the Grampians, J. W. Audas, Nov., 1923.

PULTENAEA GRAVEOLENS Tate.

This plant has apparently not been gathered in Victoria since Mr S. Johnson sent it to Mueller from Meredith many years ago, until with Mr. E. Cooper, senr., the author found it at Steiglitz in October, 1925.

ADDENDUM.

[Read 8th December, 1927.]

PULTENAEA PATELLIFOLIA, sp. nov.

Frutex fere glaber 0.5—1 m. altus, ramulis pubescentibus, foliis fere sessilibus alternatis late obovatis vel orbicularibus circiter 3 mm. longis latisque margine paululum incurvatis ad apicem recurvo-mucronatis supra glabris infra sparsim pubescentibus, stipulis parvis, floribus subumbellatis 3-6 ramulos terminantibus, pedicellis pilosis 5-6 mm. longis, bracteis parvis, bracteolis viscosis orbicularibus appressis vix 2 mm. longis subter tubum calycis affixis, calyce circiter 5 mm. longo fere glabro lobis fere aequalibus tubo brevioribus, vexillo luteo lineis atro-rubris instructo, alis luteis, carina atro-rubra, ovario villosa in stylum subulatum extenuato, legumine ovato-oblongo breviter acuminato, seminibus 2 distincte strophiolatis.

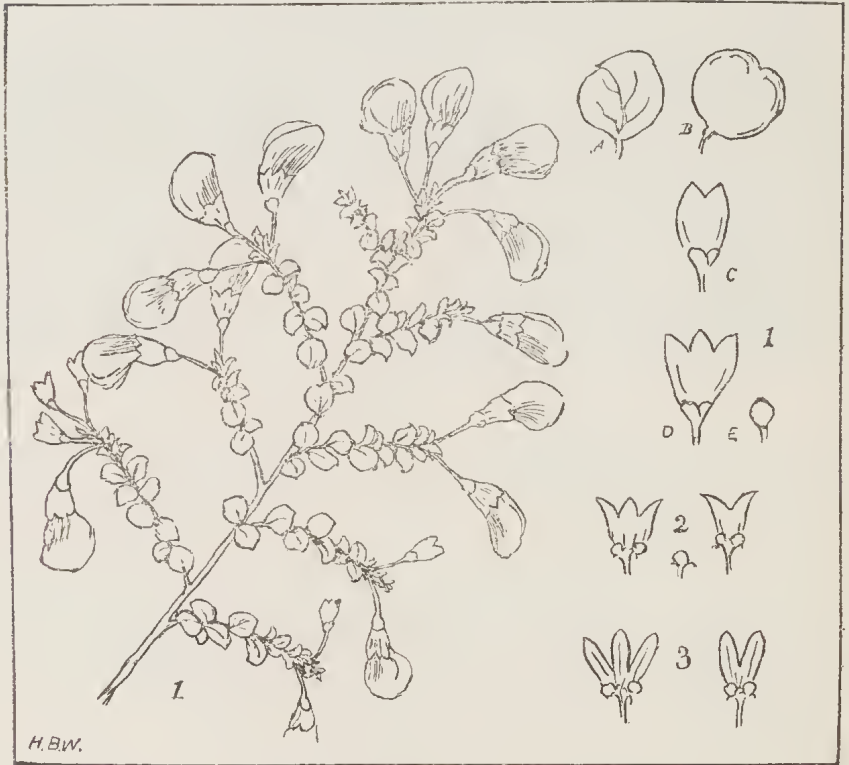


FIG. 1.

1. *P. patellifolia*—A, leaf, under side; B, leaf, upper side; C, upper calyx lobes; D, lower calyx lobes; E, bracteole.
2. *P. foliolosa*, calyx and bracteoles.
3. *P. Stuartiana*, calyx and bracteoles.

Mt. Byron, Black Range, Western Grampians, Vic., Mr. Harold Smith, October, 1927.

An almost glabrous shrub, $\frac{1}{2}$ to 1 m. high, with pubescent branchlets. Leaves almost sessile, alternate, broadly ovate to orbicular, many dish-shaped, about 3 mm. in diameter, with slightly incurved margins, and ending in a recurved mucrone, glabrous above, slightly hairy below. Stipules small. Flowers almost umbellate, 3 to 6, terminating the short branchlets, with hairy pedicels 5 to 6 mm. long. Bracts small. Bracteoles viscid, orbicular, appressed, scarcely 2 mm. long, and fixed below the tube of the calyx. Calyx about 5 mm. long, almost glabrous, with nearly equal lobes shorter than the tube. Standard yellow with dark-red lines. Wings yellow. Keel dark red. Ovary villous tapering into a subulate style. Pod ovate-oblong, shortly acuminate. Seeds two, with a distinct strophiole.

This graceful and very distinct species has some resemblance to *Bossiaea cordigera*, although it is not a scrambling shrub, but distinctly erect. It belongs to the Section *Coelophyllum*, and its nearest ally is *P. Vrolandii* Maiden, which it resembles in having viscid bracteoles forming a complete cup fixed just under the calyx; but in the case of *P. Vrolandii* this cup is inflated, and almost conceals the calyx, while in the new species it is very small, and tightly appressed to the calyx. The leaves are quite unlike those of any other *Pultenaea*, their dish-like appearance suggesting the specific name, and the umbel-like inflorescence with flowers on long pedicels is unusual in the genus. It may be remarked that although the flowers are at first terminal, the ends of the branchlets are somewhat produced after flowering, so that the flowers are not then strictly terminal.

The discoverer, Mr. Smith, handed the plant in at the National Herbarium, and the Government Botanist, Mr. Rae, noting that it was worthy of further investigation, instructed his senior assistant, Mr. Audas, to proceed to Horsham to obtain additional material. The author was invited to accompany him, and through the good offices of Mr. Smith a visit was paid to the locality, 38 miles S.W. of Horsham, where the plant was found in abundance both in the sandy soil at the foot and among the rocks at the summit of Mt. Byron. As a vernacular name "Mt. Byron Bush-pea" is suggested.

Pultenaea D'Altonii H.B.W.

New Locality: Mt. Talbot, towards Mt. Byron, J. W. Audas, October 30th, 1927. Previously recorded only from the Little Desert near Nhill (type locality), and from near Steigltz.